



ORIGINAL ARTICLE

THE USE OF THREE TYPES OF FERMENTED AND NON-FERMENTED ORGANIC FERTILIZERS IN THE GROWTH AND PRODUCTION OF *LACTUCA SATIVA* L.

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Abstract: A field experiment was conducted during the autumn season 2018 at Al-Haritha Research Station belonging to the College of Agriculture, Basra University (Karmat Ali), to know the effect of the adding of cows, sheep and poultry waste on the growth and yield of local lettuce cultivars *Lactuca sativa* L. The study included two factors, the first types of organic wastes (cows, sheep and poultry) and two methods of fermentation (fermented and non-fermented). The treatments were randomly distributed according to the Randomized Complete Block Design (R.C.B.D) and the averages were compared according to the least significant difference (LSD) test and at 5% level of significance. The results showed that sheep manure excelled on all studied traits by giving them the highest average of all traits and fermentation treatment excelled for all studied traits. The fermented sheep manure treatment significantly excelled on the rest of the treatments, where it gave the highest values to the studied traits, where the number of leaves reached 58.66 leaves per plant⁻¹ and the percentage of dry matter was 6.83% for dry matter, Vitamin C 32.34 mg 100 g⁻¹ wet material, leg diameter 3.16 cm, dunum production 20.09 tons.dunam⁻¹, dry weight 47.2 g, total soluble matter 5.5%, protein percentage 31.45%, fresh weight 806.1 g.plant⁻¹ and leaf area 10818 cm².

Key words: Organic fertilizers, Growth, Production, *Lactuca sativa* L.

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